

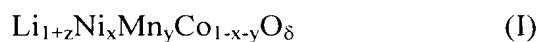
SUPPORT FOR THE AMENDMENTS

The amendments to Claims 1 and 2 are supported by the specification, especially the Examples.

REMARKS

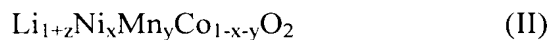
Claims 1-19 are pending. Favorable reconsideration is respectfully requested.

As set forth in Claim 1, the present invention relates to a powder of a layered lithium-nickel-manganese-cobalt composite oxide which is for use as a positive-electrode material for lithium secondary battery, which has a composition represented by the following formula (I), having a volume resistivity of $5 \times 10^5 \Omega \cdot \text{cm}$ or lower in the state of being compacted at a pressure of 40 MPa, and having a value of C/S, wherein C is the concentration of carbon contained therein (% by weight) and S is the BET specific surface area thereof (m^2/g), of 0.025 or smaller:



where $0.04 < z \leq 0.91$, $0.1 \leq x \leq 0.55$, $0.20 \leq y \leq 0.90$, $0.50 \leq x+y \leq 1$, and $1.9 \leq \delta \leq 3$, and wherein the powder contains carbon.

As set forth in Claim 2, the present invention also relates to a powder of a layered lithium-nickel-manganese-cobalt composite oxide which is for use as a positive-electrode material for lithium secondary battery, characterized by having a composition represented by the following formula (II), having a volume resistivity of $5 \times 10^5 \Omega \cdot \text{cm}$ or lower in the state of being compacted at a pressure of 40 MPa, and having a value of C/S, wherein C is the concentration of carbon contained therein (% by weight) and S is the BET specific surface area thereof (m^2/g), of 0.025 or smaller:



where $0 < z \leq 0.15$, $0.20 \leq x \leq 0.55$, $0.20 \leq y \leq 0.55$, and $0.50 \leq x+y \leq 1$, and where the powder contains carbon.

The rejections of the claims under 35 U.S.C. §103(a) over Hosoya in view of Hampden-Smith and further in view of Shizuka are respectfully traversed. These references fail to suggest the claimed powder.

The present Inventors have found that by regulating a layered lithium-nickel-manganese-cobalt composite oxide having a composition in a limited range so as to have a volume resistivity not higher than a specified value and a considerably reduced carbon content, a powder of a layered lithium-nickel-manganese-cobalt composite oxide can be obtained which, when used as a positive-electrode material for lithium secondary battery, enables a cost reduction and higher safety to be reconciled with improved battery performances. See paragraph [0013] of the specification.

As discussed above, carbon is present in the powder of the present invention (see the last line of Claims 1 and 2). The present invention is not described in the cited references, nor is the claimed powder suggested by those references.

The Examiner argues that the volume resistivity in the present invention overlaps the value in the references although the volume resistivity is not described therein. In the present specification, the method for reducing the volume resistivity is described as below.

[0014]

Methods for regulating the volume resistivity of the layered lithium-nickel-manganese-cobalt composite oxide to a value not higher than the specified value are not particularly limited. It is, however, thought that the regulation can be attained, for example, by regulating the lithium/transition metal (nickel, manganese, and cobalt) proportion or diminishing resistive ingredients, such as unreacted substances and impurities, which can be present on the surface of or at grain boundaries in the active material, as will be described later. Furthermore, methods for considerably reducing the carbon content of the layered lithium-nickel-manganese-cobalt composite oxide also are not particularly limited. It is, however, thought that the carbon content reduction can be attained, for example, by the selection of raw materials and improving reactivity in calcination by, e.g., regulating the degree of raw-material pulverization, imparting an increased

specific surface area to the raw materials, and improving the degree of raw-material mixing, as will be described later.

Hosoya discloses to merely mix raw materials, and does not describe performing treatments including selecting raw materials, regulating the degree of raw-material pulverization, imparting an increased specific surface area to the raw materials, and improving the degree of raw-material mixing, as in the present invention. Therefore, Hosoya cannot achieve the goal of reducing resistive ingredients such as unreacted substances and impurities, which can be present on the surface of or at grain boundaries in the active material.

Thus, the volume resistivity of the reference is different from the present invention. Accordingly, Hosoya does not disclose the present invention, and the present invention is not suggested by that reference.

In the present invention, as mentioned above, the definition of lower limit of z has the same meaning as the definition of the lower limit of C/S value. The present invention is not described in Hosoya, and the concept for the present invention cannot be easily expected from that reference. Moreover, Hampden-Smith and Shizuka fail to remedy the deficiencies of Hosoya.

In view of the foregoing, the claimed powder is not suggested by Hosoya in view of Hampden-Smith and further in view of Shizuka. Accordingly, the subject matter of the pending claims is not obvious over those references. Withdrawal of this ground of rejection is respectfully requested.

The rejection of the claims under 35 U.S.C. §112, second paragraph, is believed to be obviated by the amendment submitted above. Claims 1 and 2 have been amended to specify the presence of carbon. In view of the foregoing, the claims are definite within the meaning

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of 35 U.S.C. §112, second paragraph. Withdrawal of this ground of rejection is respectfully requested.

Applicants submit that the present application is in condition for allowance. Early notice to this effect is earnestly solicited.

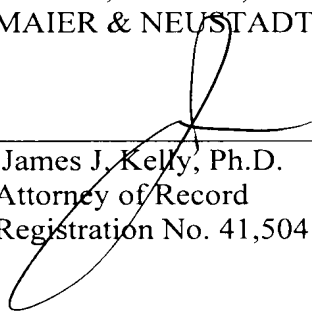
Respectfully submitted,

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